

# IOWA ACUTE DISEASE MONTHLY UPDATE

**CENTER FOR ACUTE DISEASE EPIDEMIOLOGY**

**February, 2018**



Iowa Department of public Health

## TABLE OF CONTENTS

Introduction.....	3
Iowa County Boundaries and Population.....	4
January Case Counts .....	5
12 Month Case Counts – Counties A-E.....	6
12 Month Case Counts – Counties F-L.....	7
12 Month Case Counts – Counties M-W.....	8
Campylobacteriosis Summary.....	9
Cryptosporidiosis Summary.....	10
E. coli (STEC) Summary.....	11
Giardiasis Summary.....	12
Lyme Disease Summary.....	13
Mumps Summary.....	14
Pertussis Summary.....	15
Salmonellosis Summary.....	16
Shigellosis Summary.....	17
Select Low-Prevalence Disease Summaries.....	18
Center for Acute Disease Epidemiology (CADE) Staff.....	19

## INTRODUCTION

The Center for Acute Disease Epidemiology (CADE) uses the most recent Council of State and Territorial Epidemiologists (CSTE) / Centers for Disease Control and Prevention (CDC) case definitions found on the [National Notifiable Disease Surveillance System \(NNDSS\)](#) page. These definitions are used to classify the case as confirmed, probable, suspect, not a case, or awaiting more information. **Only confirmed and probable cases meeting the CSTE/CDC case definitions are included in official case counts.**

CADE began using the suspect case definition as a final classification on Jan 1, 2017. Suspect cases are not included in the official case count but only meant to better estimate burden of disease. Any counts in this report from dates prior to Jan 1, 2017 do not include suspect cases.

Disease case counts were compiled from the Iowa Disease Surveillance System (IDSS). Data are provisional and subject to monthly reporting variation.

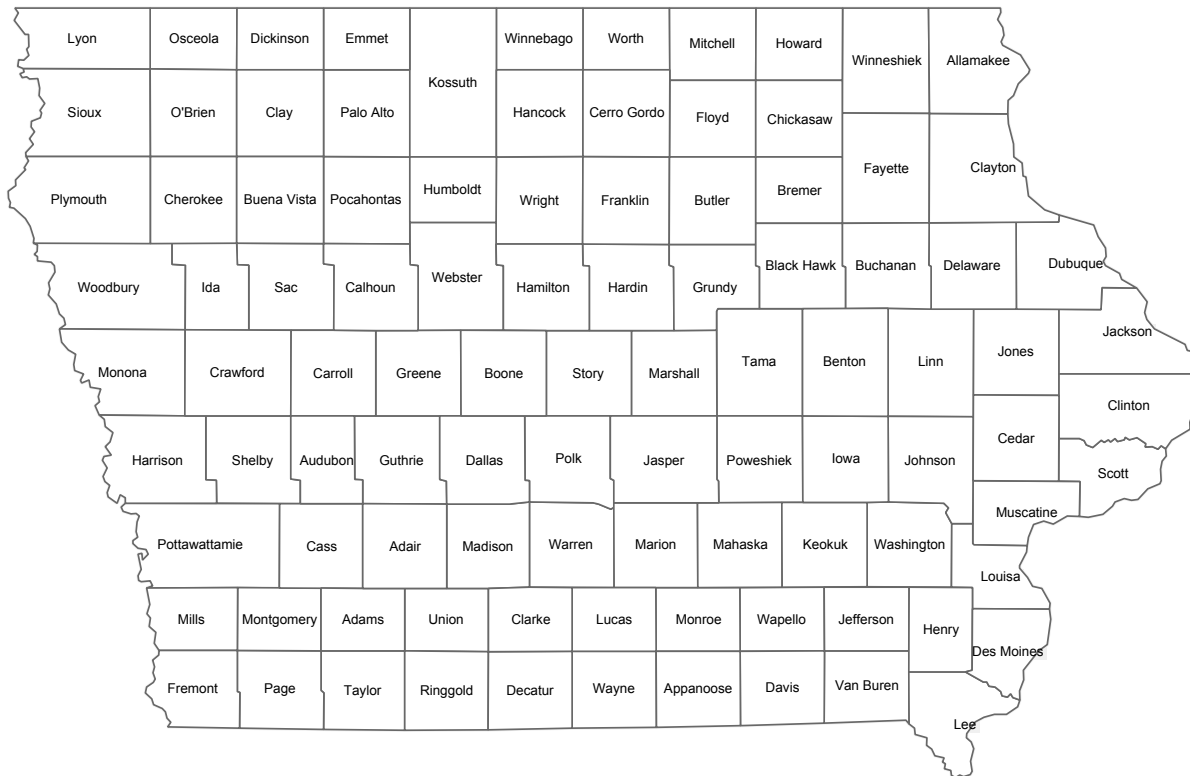
Hospitalization data is collected from the IDSS database. In some instances, cases may have been hospitalized for reasons other than the disease indicated.

Forecasting was done using Tableau forecast models.

Rates were calculated using the April 1, 2010 estimated census population for the State of Iowa.

# Iowa County Boundaries and Population

2010 Census Data



April 1, 2010 population estimates

Adair	7,682	Floyd	16,303	Monona	9,243
Adams	4,029	Franklin	10,680	Monroe	7,970
Allamakee	14,330	Fremont	7,441	Montgomery	10,740
Appanoose	12,887	Greene	9,336	Muscatine	42,745
Audubon	6,119	Grundy	12,453	O'Brien	14,398
Benton	26,076	Guthrie	10,954	Osceola	6,462
Black Hawk	131,090	Hamilton	15,673	Page	15,932
Boone	26,306	Hancock	11,341	Palo Alto	9,421
Bremer	24,276	Hardin	17,534	Plymouth	24,986
Buchanan	20,958	Harrison	14,928	Pocahontas	7,310
Buena Vista	20,260	Henry	20,145	Polk	430,640
Butler	14,867	Howard	9,566	Pottawattamie	93,158
Calhoun	9,670	Humboldt	9,814	Poweshiek	18,914
Carroll	20,816	Ida	7,089	Ringgold	5,131
Cass	13,956	Iowa	16,355	Sac	10,350
Cedar	18,499	Jackson	19,848	Scott	165,224
Cerro Gordo	44,151	Jasper	36,842	Shelby	12,167
Cherokee	12,072	Jefferson	16,843	Sioux	33,704
Chickasaw	12,439	Johnson	130,882	Story	89,542
Clarke	9,286	Jones	20,638	Tama	17,767
Clay	16,667	Keokuk	10,511	Taylor	6,317
Clayton	18,129	Kossuth	15,543	Union	12,534
Clinton	49,116	Lee	35,862	Van Buren	7,570
Crawford	17,096	Linn	211,226	Wapello	35,625
Dallas	66,135	Louisa	11,387	Warren	46,225
Davis	8,753	Lucas	8,898	Washington	21,704
Decatur	8,457	Lyon	11,581	Wayne	6,403
Delaware	17,764	Madison	15,679	Webster	38,013
Des Moines	40,325	Mahaska	22,381	Winnebago	10,866
Dickinson	16,667	Marion	33,309	Winnesiek	21,056
Dubuque	93,653	Marshall	40,648	Woodbury	102,172
Emmet	10,302	Mills	15,059	Worth	7,598
Fayette	20,880	Mitchell	10,772	Wright	13,229

# Case Counts for January 2018

## Confirmed, Probable, and Suspect Cases

Note: Only counties with cases in January are displayed in the table.

	Campylobacteriosis	Cryptosporidiosis	E. coli (STEC)	Giardiasis	Hepatitis B (acute and chronic)	Legionellosis	Lyme	Malaria	Mumps	Pertussis	Q Fever (acute and chronic)	Rocky Mountain spotted fever	Salmonellosis	Shigellosis	Grand Total
Allamakee							1								1
Appanoose													1		1
Audubon													1		1
Benton	1			1									2		4
Black Hawk	1								1	1			3	2	8
Boone			2												2
Bremer													2		2
Buchanan	2														2
Buena Vista	1													1	2
Butler													1		1
Cass					1							1			2
Cedar					1										1
Cerro Gordo	1														1
Cherokee		1													1
Clayton	2	1	1												4
Clinton													4		4
Crawford					1										1
Dallas	3	2		1									2	2	10
Delaware	1												1		2
Des Moines	2	2											1		5
Dickinson	1														1
Dubuque				2			3			1			1		7
Franklin													1		1
Greene	1														2
Guthrie														1	1
Hancock				1											1
Henry													1		1
Howard	1														1
Humboldt			1												1
Ida													1		1
Iowa		1													1
Jackson									2				3		5
Jasper				1											1
Jefferson	1														1
Johnson			1	2	1								1		5
Jones		1		1									1		3
Kossuth													1		1
Linn	3					1							8		12
Louisa											1				1
Lucas													1		1
Lyon	1														1
Madison		1											3		4
Mahaska													1		1
Marion	1														1
Marshall		1													1
Mitchell		3	1												4
Montgomery	1												1		2
Muscatine	1												2		3
Plymouth		2													2
Pocahontas	1														1
Polk	24	3	8	3	2		1		1				10	2	54
Pottawattamie				1									1		2
Sac	3												1		4
Scott	3		1							1			5	6	16
Shelby	1												2		3
Sioux	1	1											3		5
Story	1	1		1					1				2		6
Union													1		1
Van Buren	1														1
Warren		1											3		4
Washington	1									1					2
Webster	1				1								2		4
Woodbury		2			2			1					1		6
Wright	3												1		4
<b>Grand Total</b>	<b>65</b>	<b>23</b>	<b>15</b>	<b>14</b>	<b>9</b>	<b>1</b>	<b>5</b>	<b>1</b>	<b>5</b>	<b>4</b>	<b>1</b>	<b>1</b>	<b>76</b>	<b>14</b>	<b>235</b>

# Case Counts for February 1, 2017 - January 31, 2017

## (Counties A-E)

### Confirmed, Probable, and Suspect Cases

	Anaplasmosis/Ehrlichiosis	Babesiosis	Campylobacteriosis	Chikungunya	CRE	Cryptosporidiosis	Cyclosporiasis	Dengue	E. coli (STEC)	Giardiasis	Haemophilus influenzae type b	Hemolytic uremic syndrome	Hepatitis A	Hepatitis B (acute and chronic)	Hepatitis D	Legionellosis	Listeria	Lyme	Meningococcal invasive disease	Mumps	Pertussis	Q Fever (acute and chronic)	Rocky Mountain spotted fever	Salmonellosis	Shigellosis	Tularemia	West Nile virus	Grand Total
Adair			2			1															2			3				8
Adams						1			1																			2
Allamakee	5		12			10			2	3								4						9			1	46
Appanoose			7		1	4			1					1							5		1	4				24
Audubon			3			1			2															3				9
Benton	1		18			9			6	1						1		9		6				7	1			59
Black Hawk			6	1		4			2	8				15	1	3		8	1	13	15			33	3			113
Boone			13		1	2	1		6	3	1	1						2			2			10				42
Bremer			3						1	1				1				1		3	1			4				15
Buchanan			10		2	5			4	5	1									1				11				39
Buena Vista			21		1	7			1			1		4				1						3	8		1	48
Butler			1			1				1						2				1		1		2				9
Calhoun			14				1		4											1			1	5	1			26
Carroll			10			4			5	1											3			9				32
Cass			4						3	1				2							2		1	4				17
Cedar			6			7			3					1				4			1			7	1			30
Cerro Gordo	1		18		4	4			4	1				4		1	1	2			1			6				47
Cherokee			1			2			4								1	1						9				18
Chickasaw		1	6		1	1			1							1		1						3				15
Clarke			9			2			2	1												1		4	1			20
Clay			4		1	3			2					1										1				12
Clayton	1		12		3	16	1		5			1		1				17		4		1		5				67
Clinton			24		2	3			3					4		2				1				19				58
Crawford			10			2			4	1				1						2				1	1			22
Dallas	1		26		6	25		1	10	7				6				3			7		2	25	7			126
Davis			1			1							1								1							4
Decatur			1			2			1																1	1		6
Delaware			16			7			4	2								3		3	1			8				44
Des Moines	1		12			10			8				2	1				1						11	2			48
Dickinson			8			7			1	1				1				1				1		2				22
Dubuque	2		42		9	27	1		26	13				4			2		39		6	3	1	1	23	2		201
Emmet			1		1	1			1	1						1		1						1				8

# Case Counts for February 1, 2017 - January 31, 2017

## (Counties F-L)

### Confirmed, Probable, and Suspect Cases

	Anaplasmosis/Ehrlichiosis	Campylobacteriosis	CRE	Cryptosporidiosis	Cyclosporiasis	E. coli (STEC)	Giardiasis	Hemolytic uremic syndrome	Hepatitis A	Hepatitis B (acute and chronic)	Lacrosse	Legionellosis	Lyme	Malaria	Mumps	Pertussis	Q Fever (acute and chronic)	Rocky Mountain spotted fever	Salmonellosis	Shigellosis	Tetanus	West Nile virus	Grand Total
Fayette		2		1		2	3			3			3						5				19
Floyd		15					1			1			2	1					5				25
Franklin		3	1			2	1								1				2	2			12
Fremont		2																1		1			4
Greene		10		2		5	2	1											2				22
Grundy													2		1				5				8
Guthrie		8	1	1		5	1								1	2			4	1			24
Hamilton		4		2		3	1								1		1		4	1			17
Hancock		4	2	5		1	1												4				17
Hardin	1	15				2	1						1						3				23
Harrison	1	3				4	1							1	2			1	1				14
Henry		5				1	1										1		6				14
Howard		7		4						1			1						1		1		15
Humboldt		4		1		1	1												2				9
Ida		1		1															1			1	4
Iowa	1	8		3		3	1										1		2				19
Jackson		13	1	6		9	3						7		2	3			7				51
Jasper		18	3	4		5	3		1	2		1	2	1				1	10				51
Jefferson	1	5		3	1		3			2			1	1					1				18
Johnson	1	41	3	11	4	22	18			17		2	40	4	8	27			32	2			232
Jones		13	4	6		7	4			1		1	4						3				43
Keokuk		6	2	5		1							1			1		1	4				21
Kossuth		4	2	1		4	1			1									3				16
Lee	1	4	16	4		2	2												4	3			36
Linn	1	61	8	39	1	18	24			21		1	33	2	8	9			62	5		1	294
Louisa		3				1	1			1							1		1				8
Lucas	1	9		3		7	1				1						1		1				24
Lyon		7		6		8	1	1											9			2	34

# Case Counts for February 1, 2017 - January 31, 2017

## Counties (M-W)

Confirmed, Probable, and Suspect Cases

	Anaplasmosis/Ehrlichiosis		Babesiosis	Campylobacteriosis	Chikungunya	CRE	Cryptosporidiosis	Cyclosporiasis	Dengue	E. coli (STEC)	Giardiasis	Haemophilus influenzae type b	Hemolytic uremic syndrome	Hepatitis A	Hepatitis B (acute and chronic)	Hepatitis D	Hepatitis E	Lacrosse	Legionellosis	Listeria	Lyme	Malaria	Meningococcal invasive disease	Mumps	Pertussis	Q Fever (acute and chronic)	Rocky Mountain spotted fever	Salmonellosis	Shigellosis	Tetanus	Tularemia	West Nile virus	Grand Total
Madison				13			8			6	2													1				4			1		35
Mahaska				11			2	2		2	2								1									9					29
Marion				9			8			2					1						1				3			5					29
Marshall	1			8	3		2	3		3	2				3	1			1	1	2			1				8	1				40
Mills				3			5			3									1									4	3				19
Mitchell				15		2	13			12	3																	2					47
Monona				1							1																	3					5
Monroe				3		1	4			3															2			2					15
Montgomery				4		1									1													1					7
Muscatine				16		3	3	1	1	14	1			1	4		1		1		3				1			10	24				84
O'Brien				9		2	1			2	2																	7					23
Osceola				3			1																					1			1		6
Page				6			1			2	1																	5					15
Palo Alto				9						2					1													1					13
Plymouth				7		2	11			6	4				1									1				1					33
Pocahontas				8			2			8			1															4					23
Polk				170		12	60	6	1	61	55			1	78	3			3		20	7		7	34	1	2	108	28		1	1	659
Pottawattamie	1			20		1	5	1	1	4	8				6				2		3				5		1	18	8			1	85
Poweshiek				5			1			2									1							1		3				1	14
Ringgold				2			3			1											1												7
Sac				15			4			4	3															1		5					32
Scott	1			37		8	9	1		14	13	1		1	15				4		15	1	1	1	45			29	56				252
Shelby				10			8			4			1		1											1		10					35
Sioux				27			37	2		5	7				1						1					1		22	2				105
Story	3	2		34		2	17	2		6	14				8				1		5	2		14				19	3			1	133
Tama				3			2			2											2			2				8	3				22
Taylor							1			1			1																				3
Union				9			5			6	1								1									3					25
Van Buren				8		1	3			1															1			1					15
Wapello				20			4			4					7	1					1	1			5			3					46
Warren		1		17		2	9			5	10				2									4	2		1	17	1		1		72
Washington				10			2			2	1														4			4					23
Wayne																												2					2
Webster				9			6		1	5	3				1						2			1		1		11					40
Winnebago	1			3			3														1							2					10
Winneshiek	1			15		1	16	1		2						1					8			11				6					62
Woodbury	1			17		8	21		1	5	7				16						1	1			4		1	18	3			1	105
Worth				4		1	5			3																							13
Wright				11		1	1			1																		5	4				23
Grand Total	29	4	1167	1	126	560	29	6	433	267	3	8	7	243	6	2	1	34	3	261	22	2	107	192	16	16	776	179	1	4	12		4517



# Campylobacter

65

Cases in January

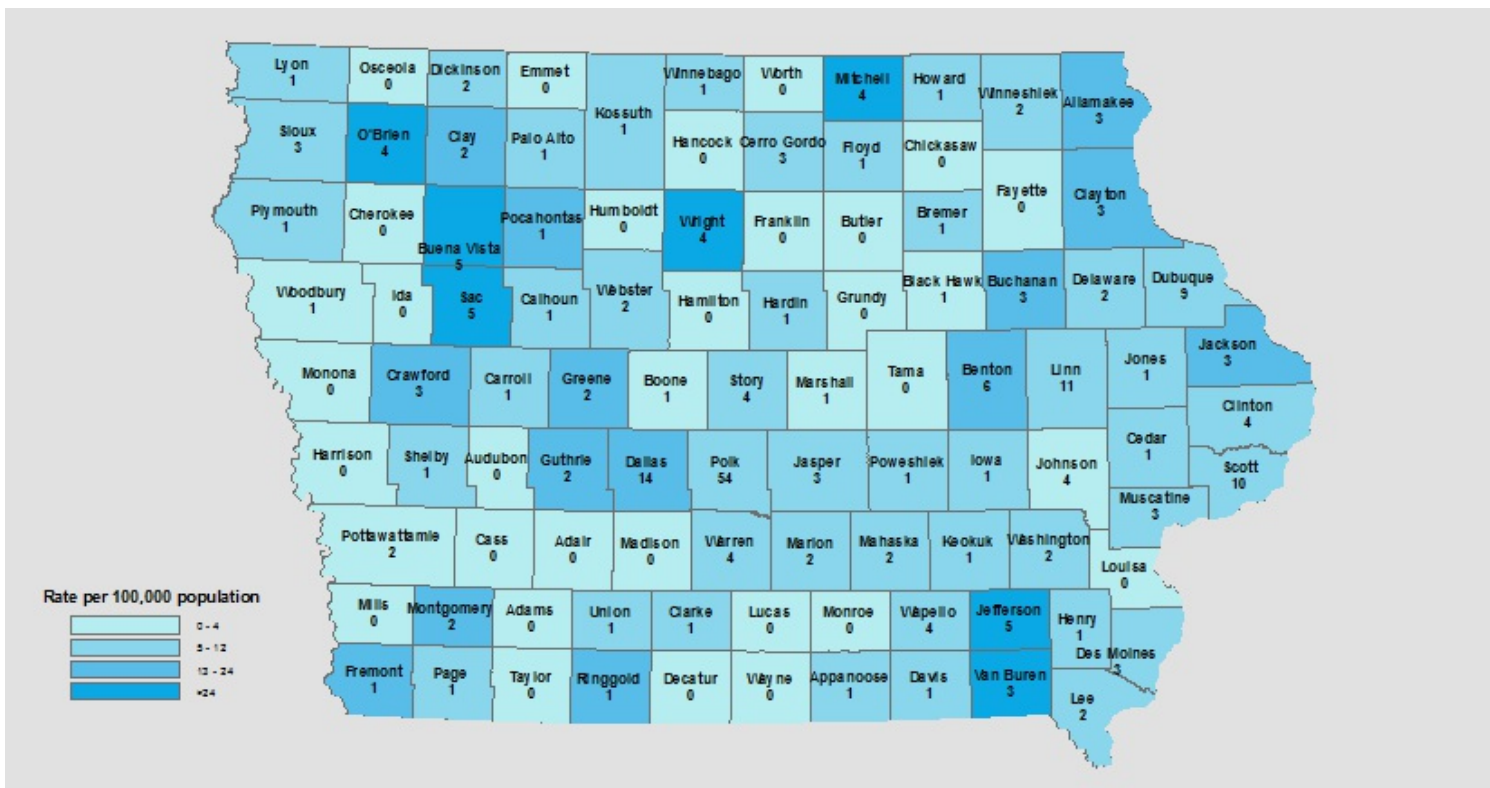
1,167

Cases in the last 12 months

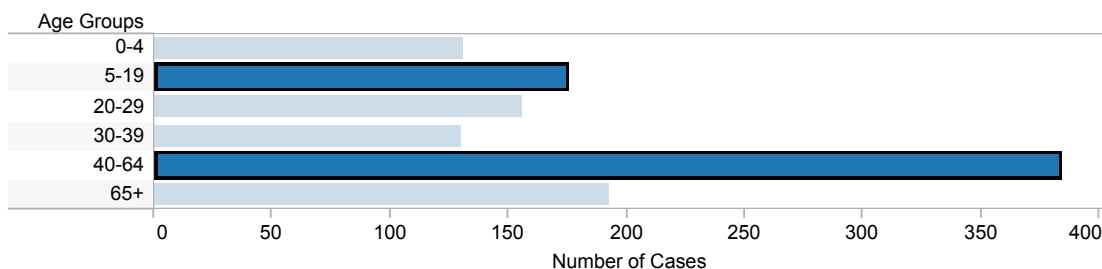
+61%

Change from previous  
5 year average

Reported campylobacteriosis cases and incidence rates per 100,000 population by county of residence for the past 3 months



Campylobacteriosis cases by age in the past 12 months. Historically, 5-19 and the 40-64 age groups constitute the majority of cases.



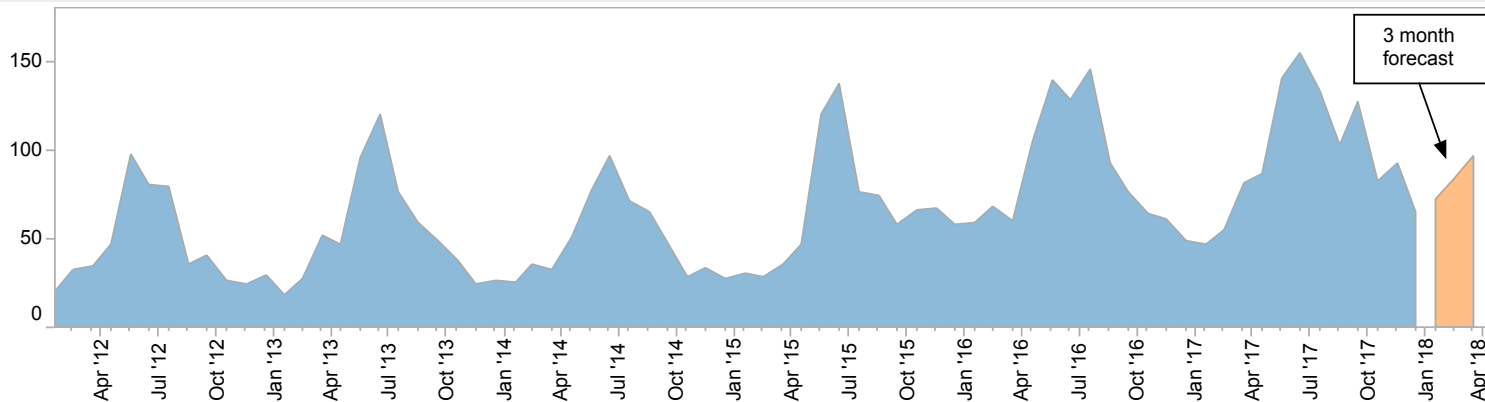
Hospitalizations in the past 12 months

38 (3%)

Campylobacteriosis cases by gender in the past 12 months

Female	541
Male	626

Reported campylobacteriosis cases by date of onset or first lab report





# E. coli (STEC)

15

Cases in January

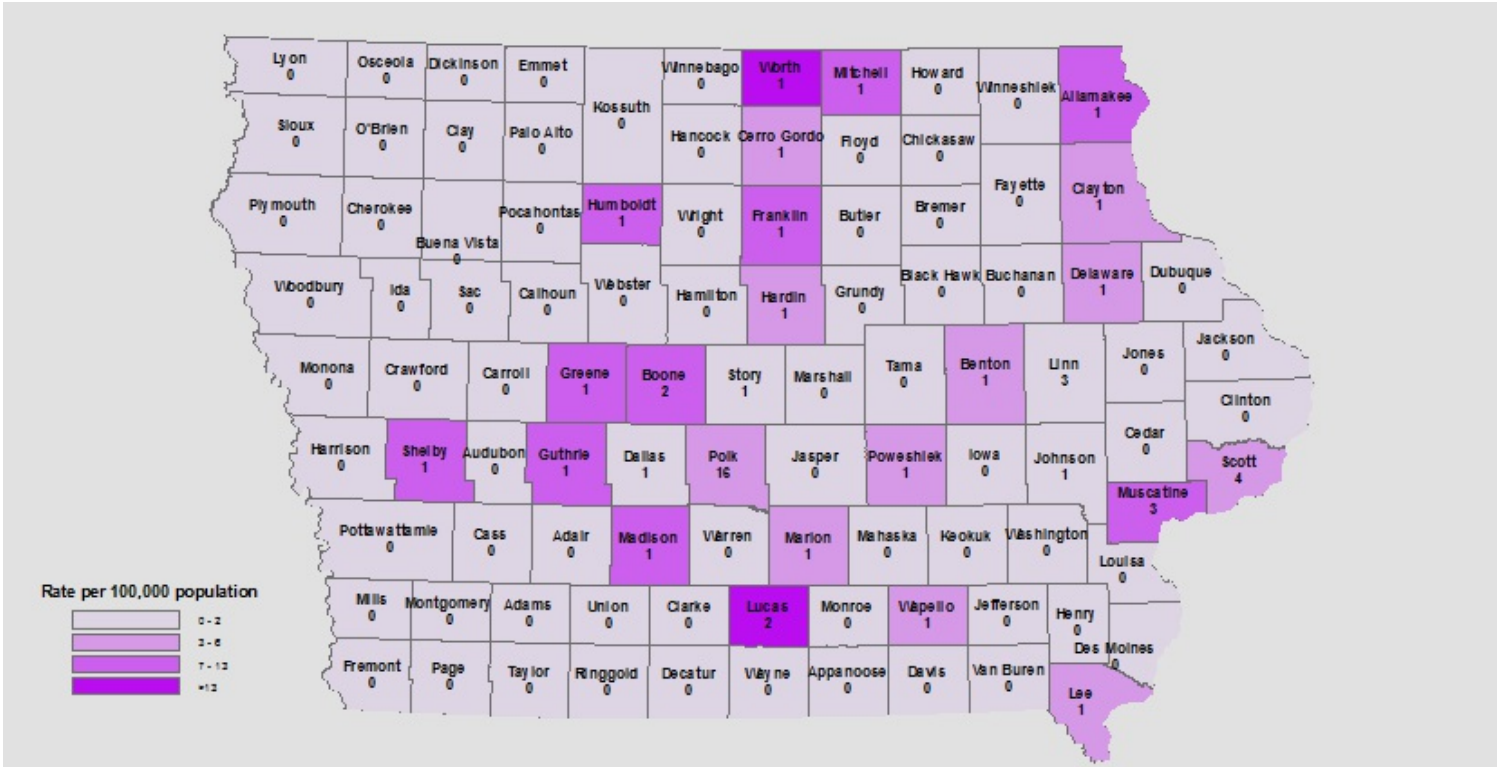
433

Cases in the last 12 months

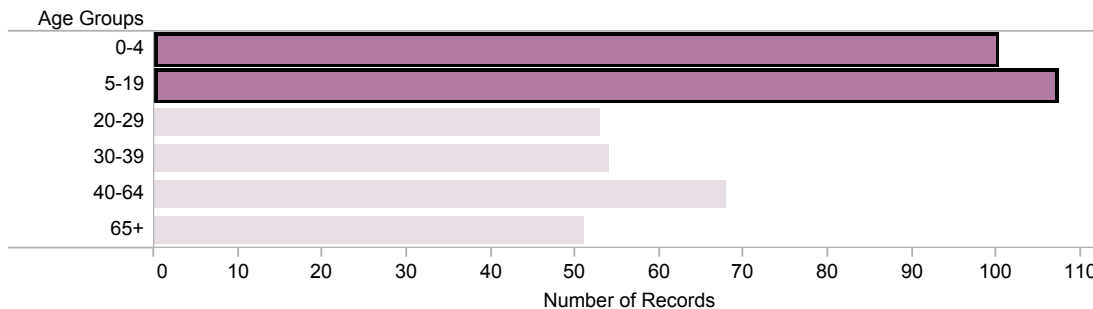
+107%

Change from previous  
5 year average

Reported E. coli (STEC) infections and incidence rates per 100,000 population by county of residence for the past 3 months



E. coli cases by age past 12 months. Almost half of all cases occur in the 0-19 age groups.



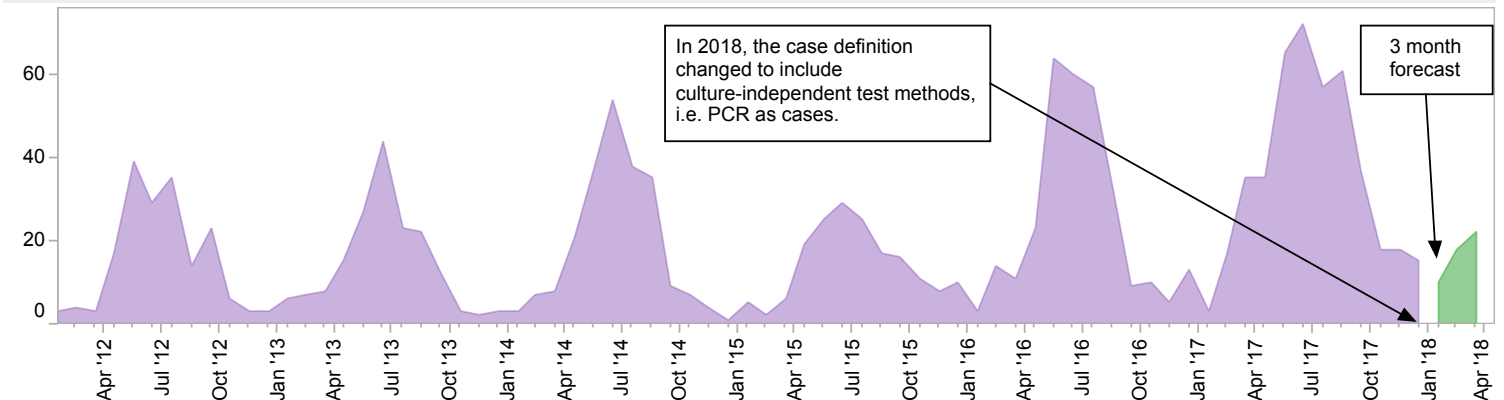
Hospitalizations in the past 12 months

88 (20%)

E. coli cases by gender past 12 months

Female	221
Male	212

Reported E. coli cases by date of onset or first lab result



# Giardia

14

Cases in January

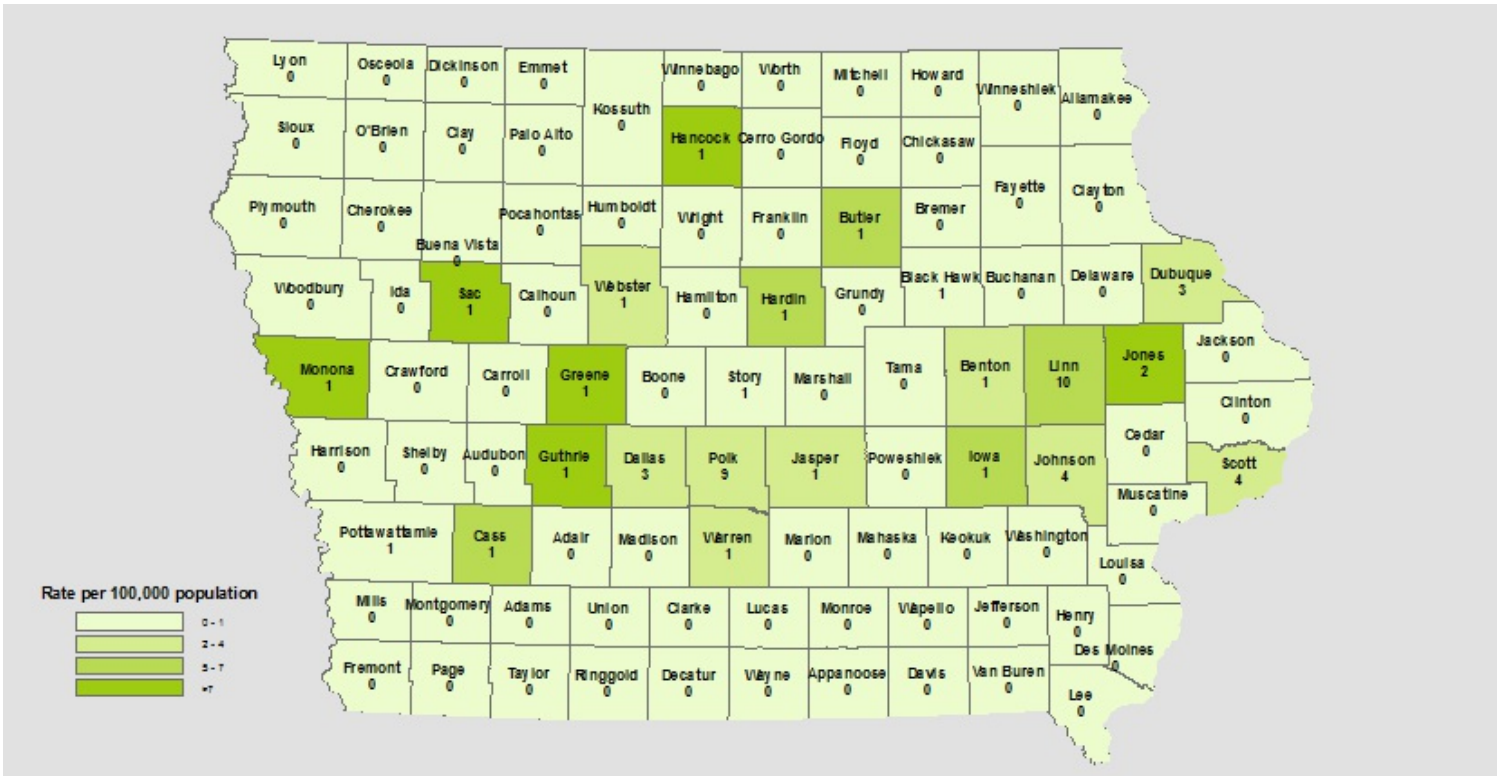
267

Cases in the last 12 months

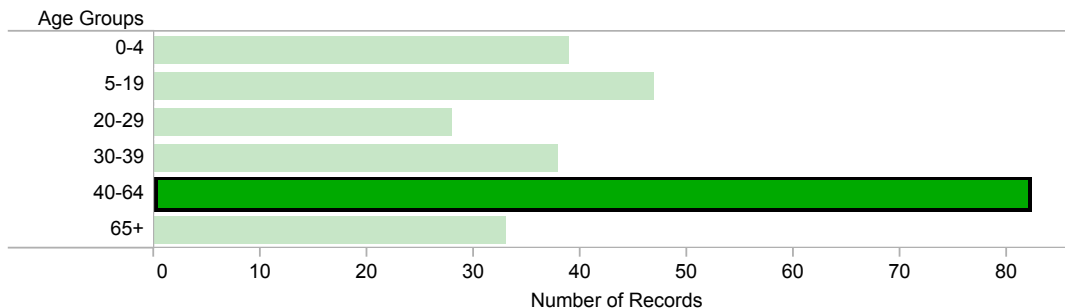
+10%

Change from previous  
5 year average

Reported giardiasis cases and incidence rates per 100,000 population by county of residence for the past 3 months



Giardiasis cases by age past 12 months. A third of all cases occurred in the 40-64 age group.



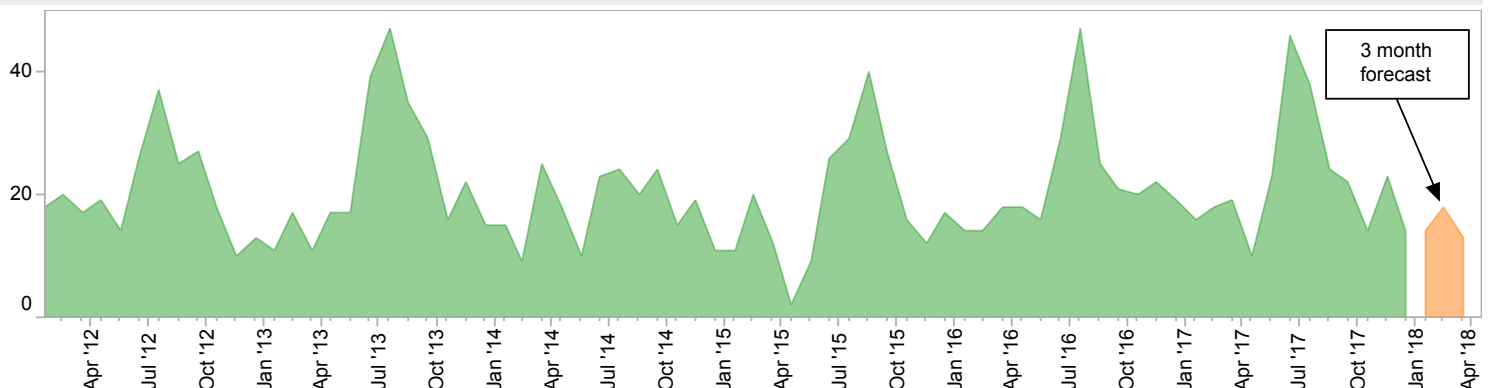
Hospitalizations in the past 12 months

36 (14%)

Giardiasis cases by gender past 12 months

Female	111
Male	156

Reported giardiasis cases by date of onset or first lab result





# Lyme disease

5

Cases in January

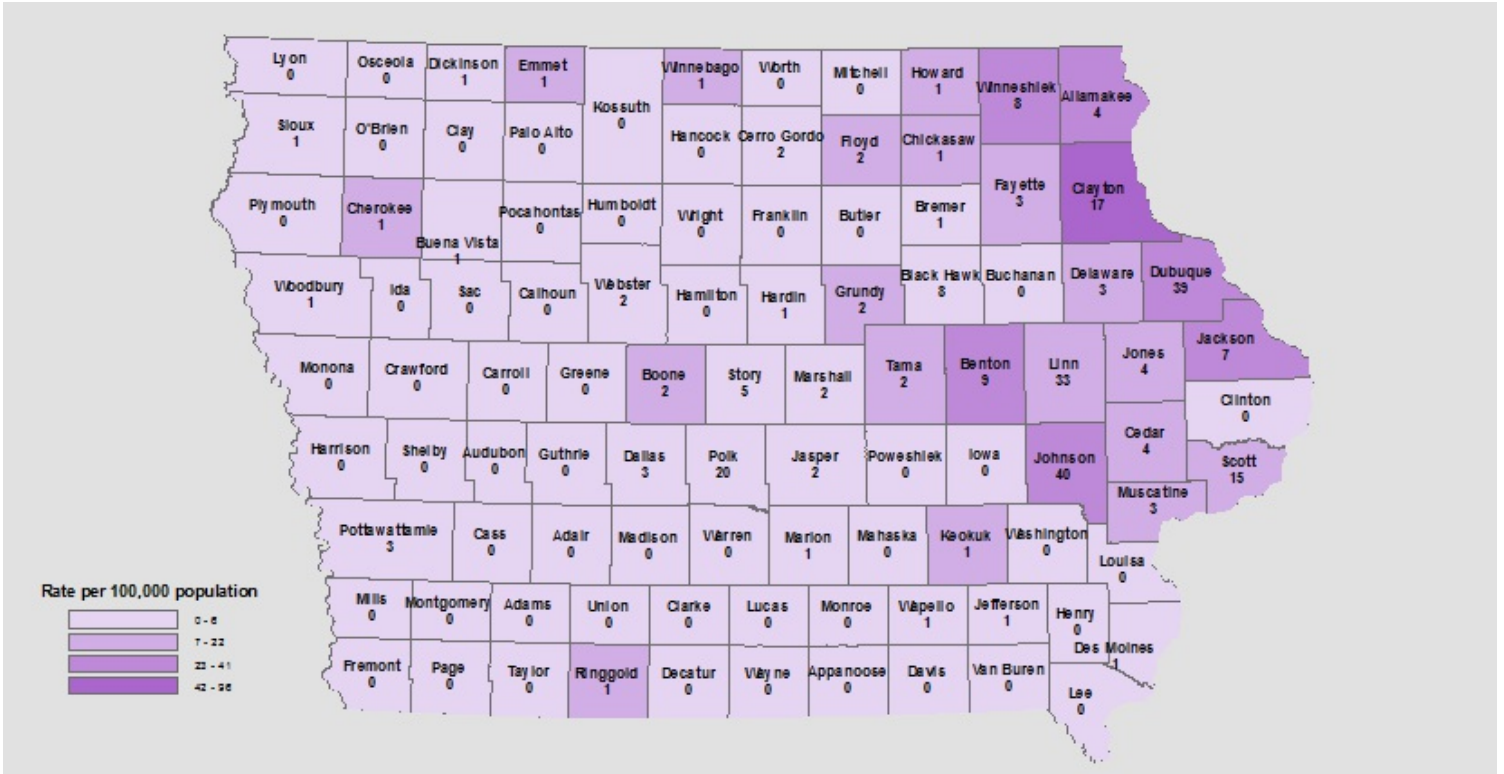
261

Cases in the last 12 months

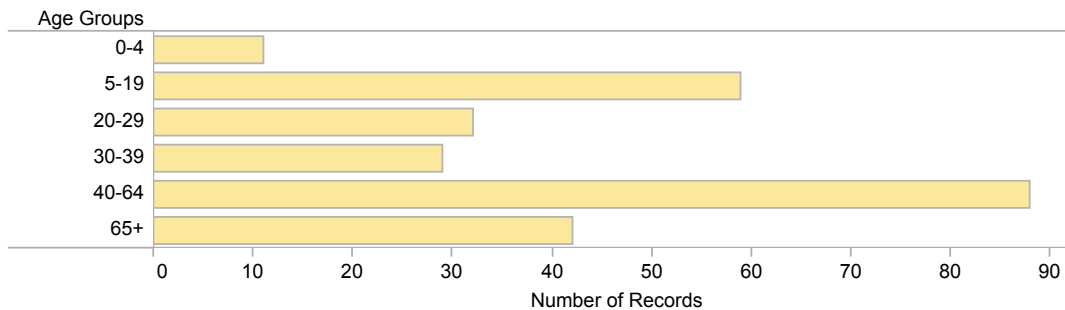
+10%

Change from previous  
5 year average

Reported Lyme diseases cases and incidence rates per 100,000 population by county of residence for the past 12 months



Lyme disease cases by age past 12 months.



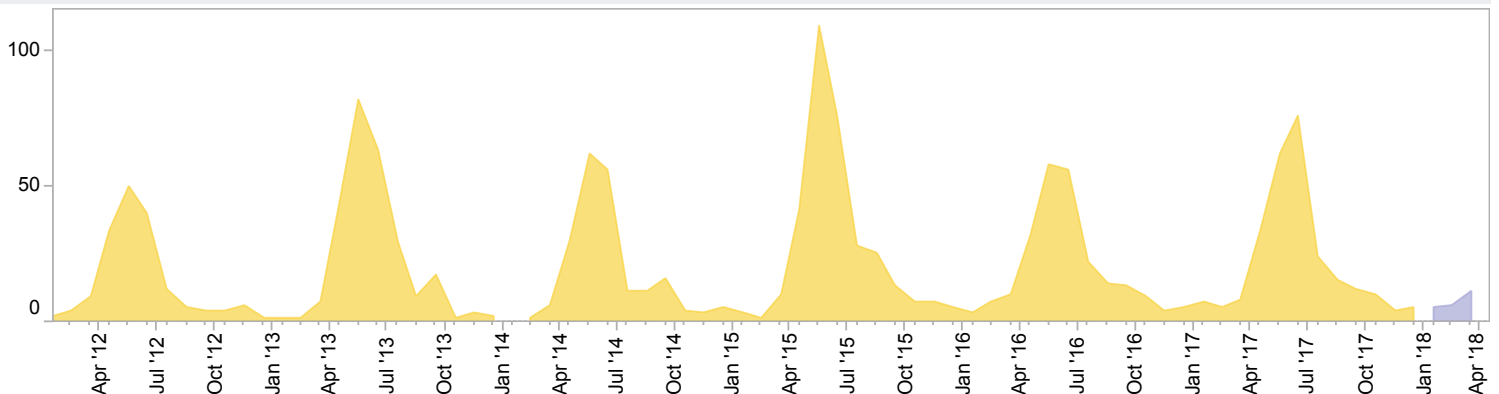
Hospitalizations in the past 12 months

36 (14%)

Lyme disease cases by gender past 12 months

Female	101
Male	160

Reported Lyme disease cases by date of onset or first lab result



# Mumps

5

Cases in January

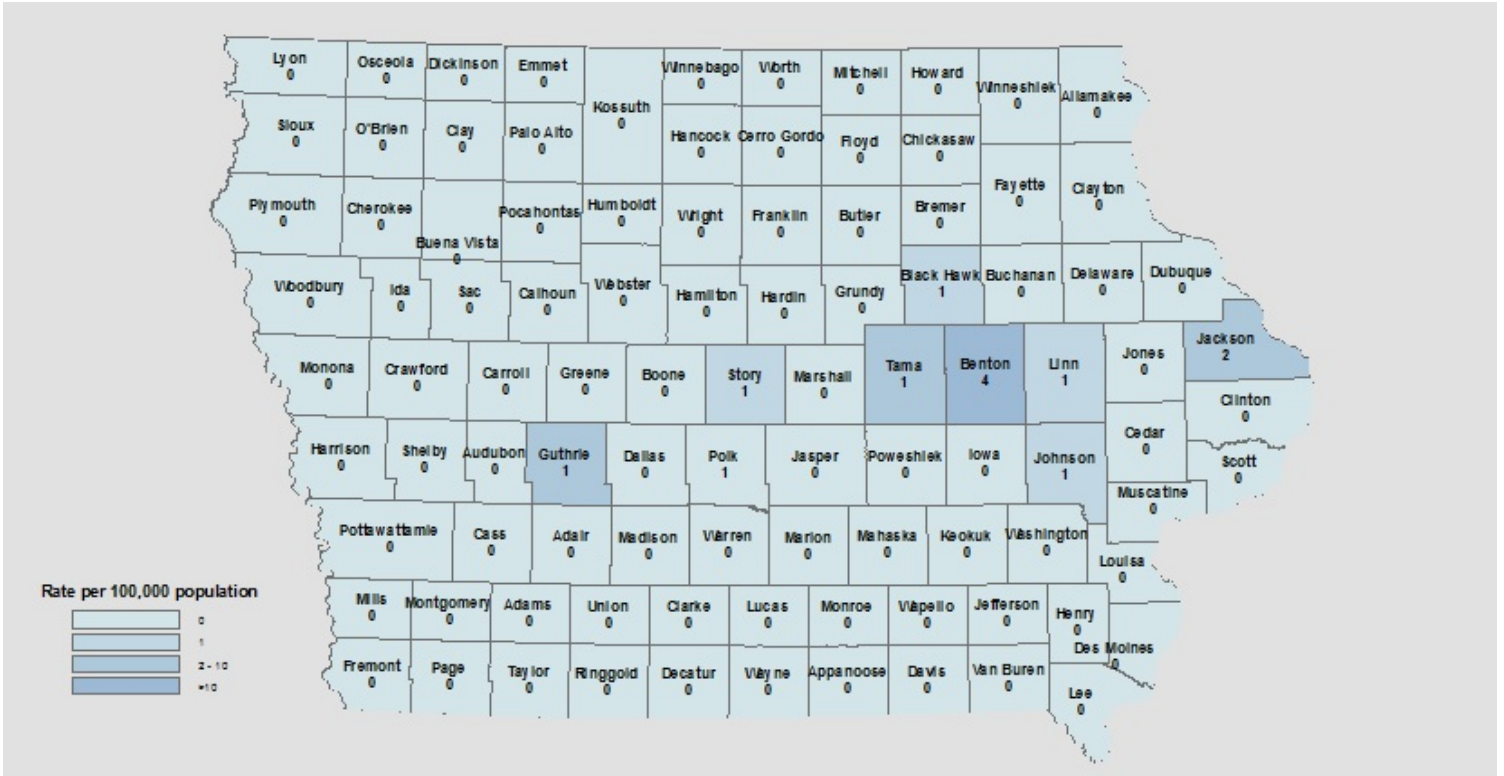
107

Cases in the last 12 months

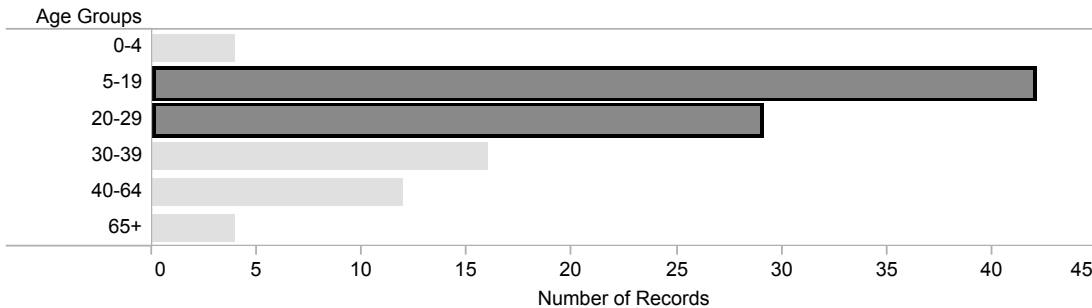
-55%

Change from previous  
5 year average

Reported mumps cases and incidence rates per 100,000 population by county of residence for the past 3 months



Mumps cases by age past 12 months. Most cases occurred in people of college age.



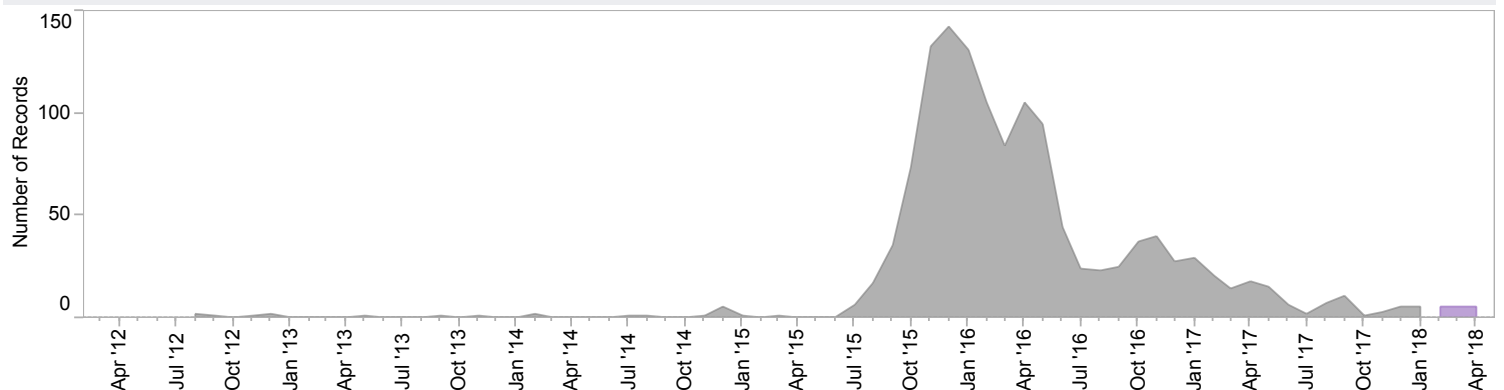
Hospitalizations in the past 12 months

7 (7%)

Mumps cases by gender past 12 months

Female	47
Male	60

Reported mumps cases by date of onset or first lab result



# Pertussis

4

Cases in January

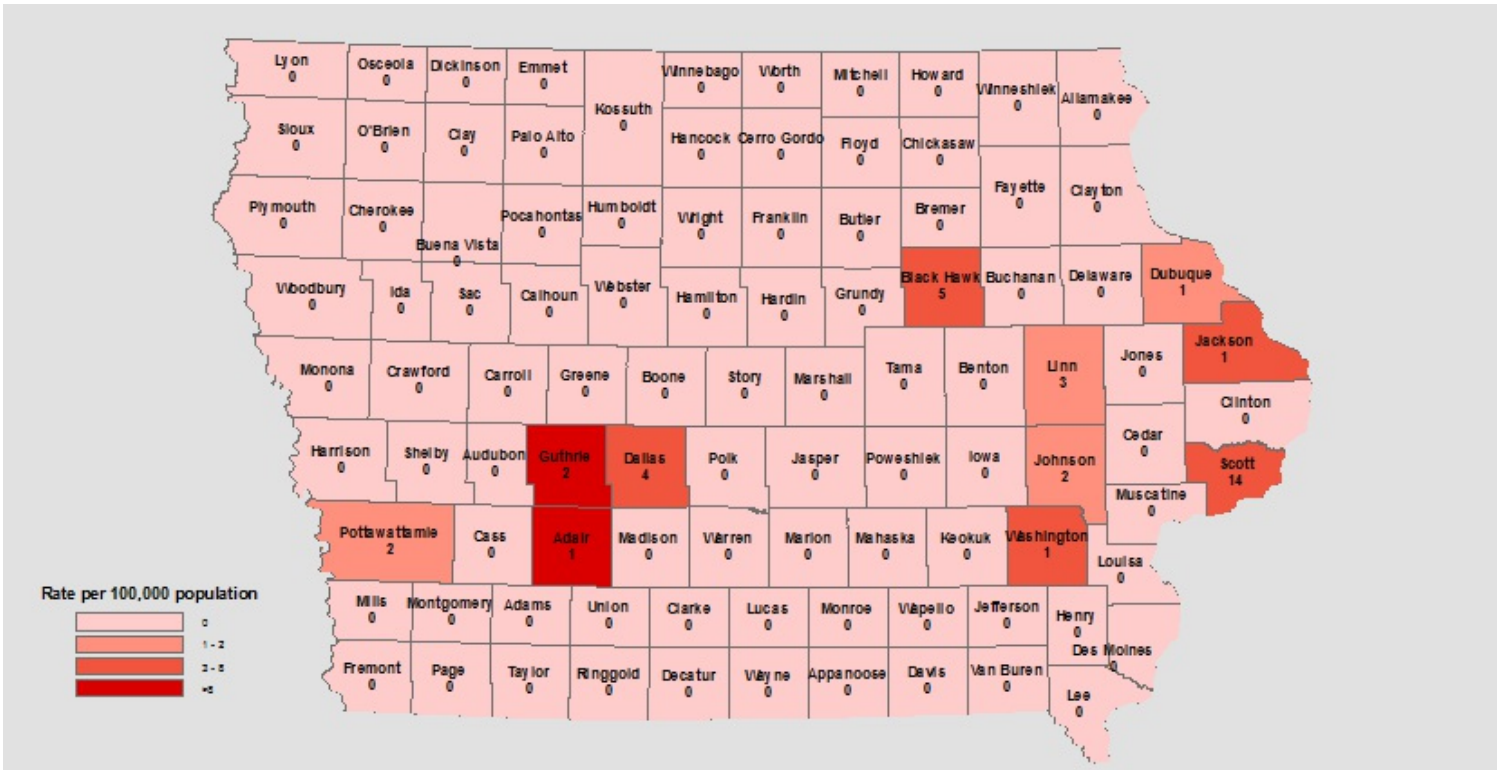
192

Cases in the last 12 months

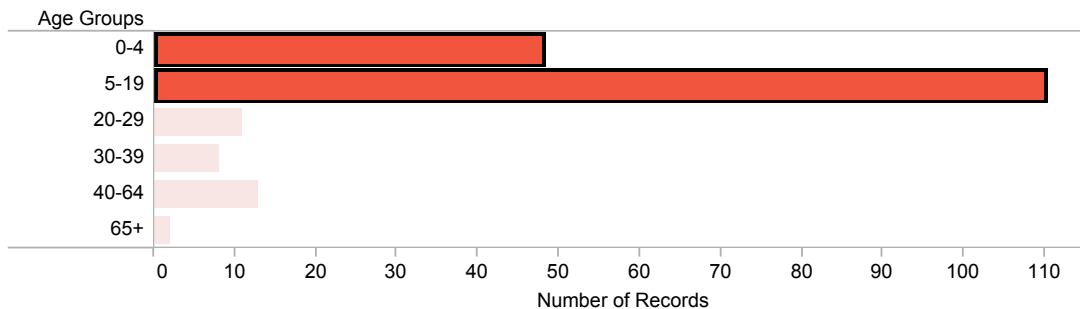
-63%

Change from previous  
5 year average

Reported pertussis cases and incidence rates per 100,000 population by county of residence for the past 3 months



Pertussis cases by age past 12 months. Most cases occur in the 0-19 year age group.



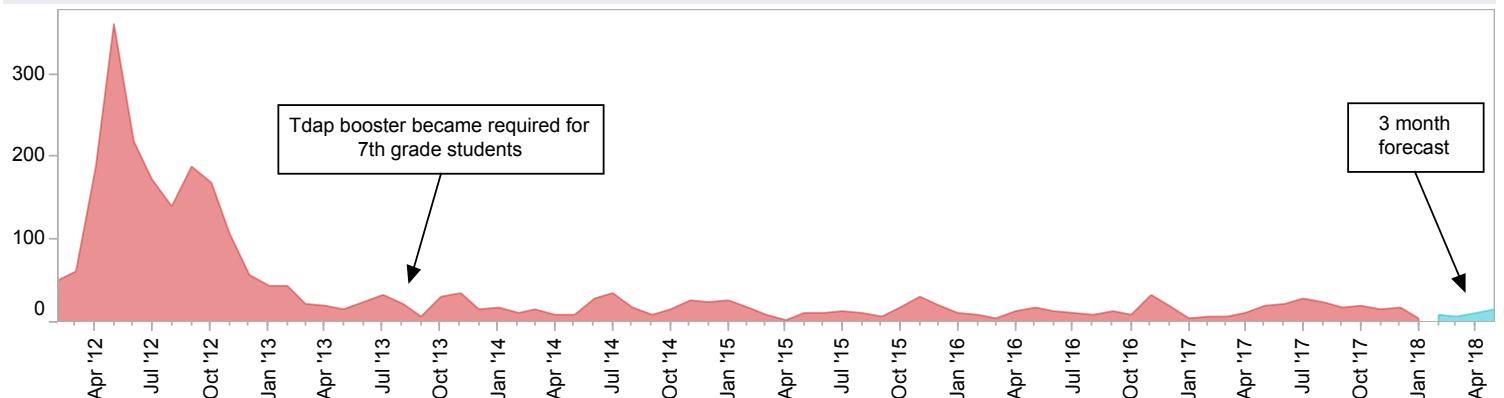
Hospitalizations in the past 12 months

7 (4%)

Pertussis cases by gender past 12 months

Female	106
Male	86

Reported pertussis cases by date of onset or first lab result



*Salmonella*

**Rate per 100,000 population**

Color Category	Range
Light Yellow	0 - 3
Medium Yellow	4 - 9
Orange	10 - 17
Dark Red	>17

**Iowa County Data:**

County	Rate
Lyon	3
Osceola	0
Dickinson	0
Emmet	0
Winneshiek	0
Vernon	0
Mitchell	1
Howard	0
Allamakee	2
Sloux	7
O'Brien	1
Clay	0
Palo Alto	1
Kossuth	1
Hancock	0
Cerro Gordo	0
Royce	1
Chickasaw	0
Fayette	2
Clayton	0
Plymouth	0
Cherokee	1
Buena Vista	0
Pocahontas	2
Humboldt	0
Wright	2
Franklin	1
Butler	2
Bremer	3
Vibodbury	1
Ida	1
Sac	2
Calhoun	0
Webster	4
Hamilton	0
Hardin	0
Grundy	1
Black Hawk	8
Buchanan	0
Delaware	1
Dubuque	5
Monona	0
Crawford	0
Carroll	2
Greene	0
Boone	3
Story	5
Marshall	1
Tama	0
Benton	3
Linn	11
Jones	1
Jackson	3
Harrison	0
Shelby	4
Audubon	1
Guthrie	1
Dallas	2
Polk	30
Jasper	1
Poweshiek	2
Iowa	0
Johnson	6
Cedar	1
Clinton	4
Scott	7
Pottawattamie	5
Cass	2
Adair	0
Madison	4
Warren	3
Marion	1
Mahaska	2
Keokuk	1
Washington	0
Muscatine	3
Louis	0
Mills	0
Montgomery	1
Adams	0
Union	1
Clarke	1
Lucas	1
Monroe	0
Vapello	2
Jefferson	0
Henry	1
Des Moines	1
Fremont	0
Page	0
Taylor	0
Ringgold	0
Decatur	0
Wayne	0
Appanoose	2
Davis	0
Van Buren	0
Lee	0

Female	394
Male	382

In 2018, the case definition changed to include culture-independent test methods, i.e. PCR as cases.

3 month forecasted trend



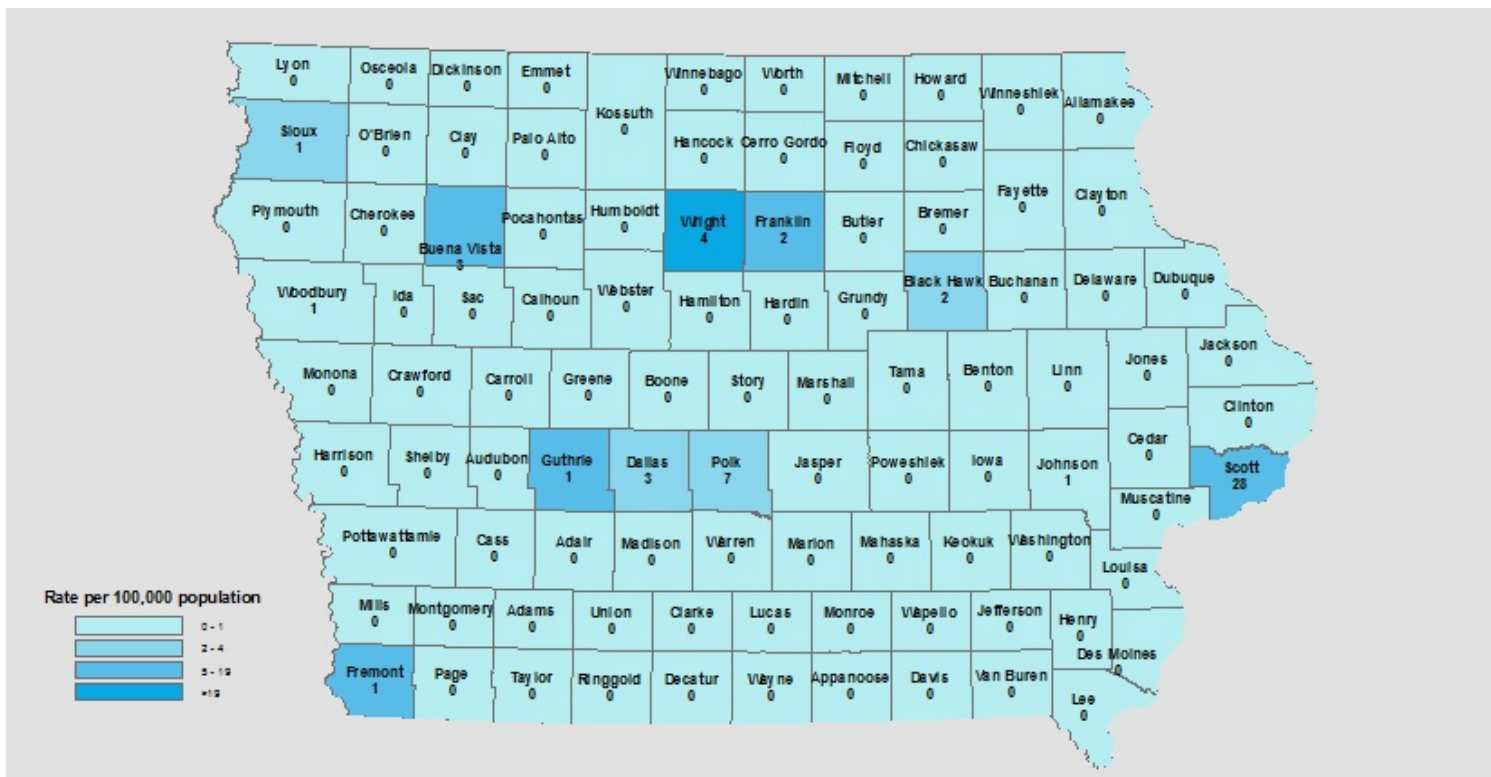
# Shigella

### Cases in January

### Cases in the last 12 months

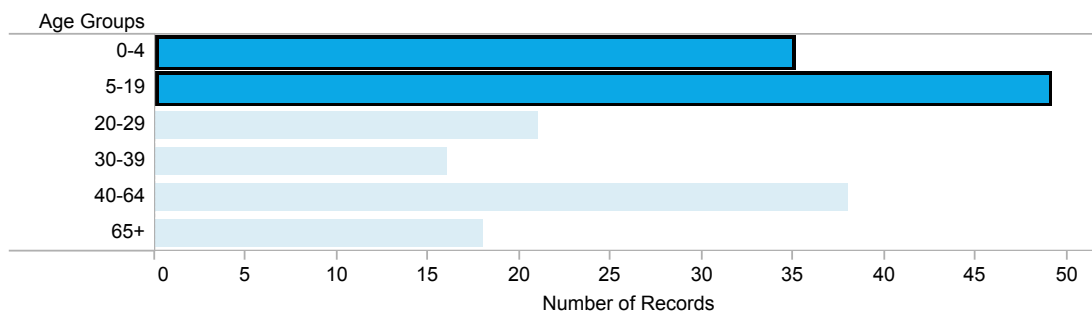
Change from previous  
5 year average

Reported shigellosis cases and incidence rates per 100,000 population by county of residence for the past 3 months



Shigellosis cases by age past 12 months. Over 45 percent of all cases occurred in the 0-19 year age groups.

Hospitlizations in the past 12 months

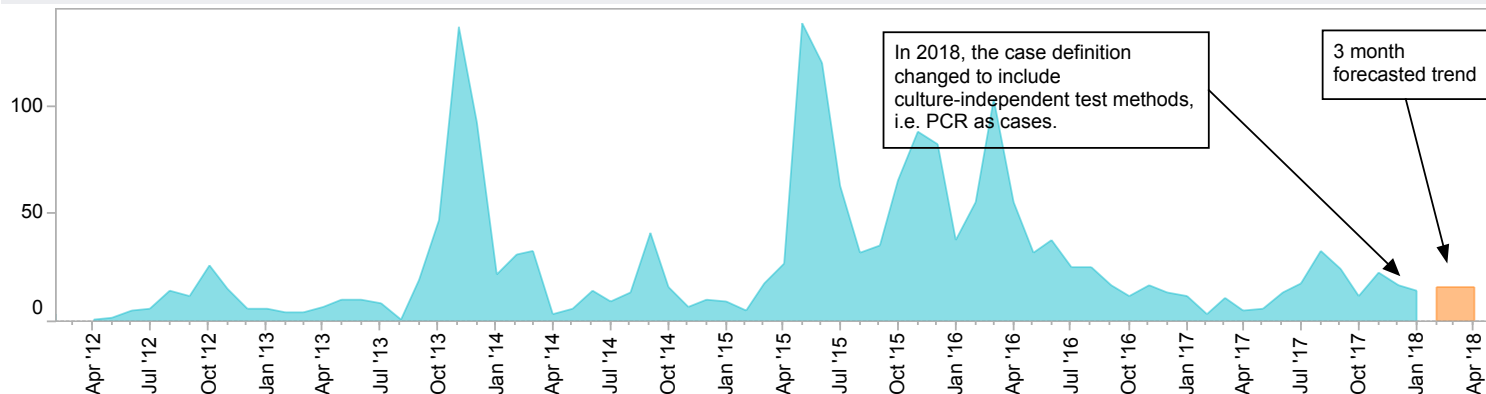


29 (16%)

### Shigellosis cases by gender past 12 months

Female	109
Male	70

Reported shigellosis cases by date of onset or first lab result



# Select low-prevalence disease summaries

## Legionella

1

Case in January

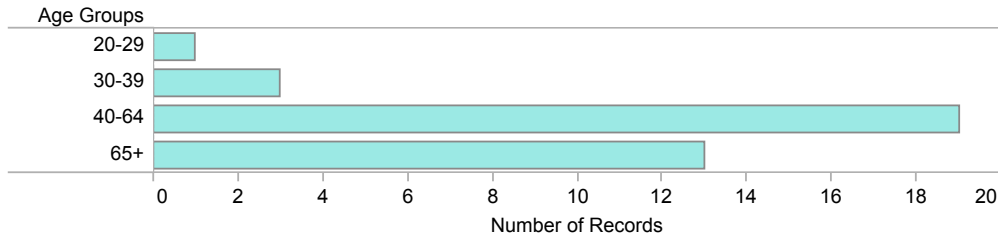
34

Cases in the last 12 months

+31%

Change from previous 5 years

Legionellosis cases by age past 12 months. No cases occurred in persons 0-19 years of age. Forty year olds and older accounted for 94% of cases.



Hospitalizations in the past 12 months

33

Legionellosis cases by gender past 12 months

Legionellosis	Female	13
	Male	21

## Q Fever (acute and chronic)

1

Case in January

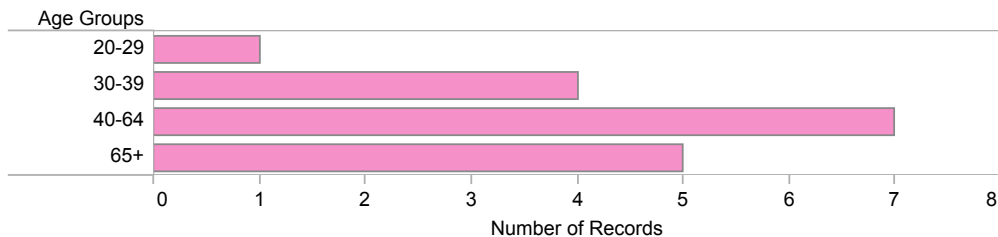
16

Cases in the last 12 months

+60%

Increase from previous year  
(Q fever was made reportable in 2016)

Q fever cases (acute and chronic) by age in the past 12 months. No cases occurred in persons 0-19 years old.



Hospitalizations in the past 12 months

12

Q fever cases by gender past 12 months

Q Fever (acute and chronic)	Female	2
	Male	14

IOWA DEPARTMENT OF PUBLIC HEALTH

[WWW.IDPH.IOWA.GOV](http://WWW.IDPH.IOWA.GOV)

(515) 281-7689

CENTER FOR ACUTE DISEASE EPIDEMIOLOGY

[WWW.IDPH.IOWA.GOV/CADE](http://WWW.IDPH.IOWA.GOV/CADE)

1-800-362-2736

Gerd Clabaugh, MPA.....	Director
Sarah Reisetter, JD.....	Deputy Director
Ken Sharp, MPA, RS.....	Division Director
Patricia Quinlisk, MD, MPH.....	Medical Director/State Epidemiologist
Ann Garvey, DVM, MPH, MA.....	Public Health Veterinarian/Deputy State Epidemiologist

CENTER FOR ACUTE DISEASE EPIDEMIOLOGY STAFF AND STUDENTS

Shawnice Cameron.....	Administrative Assistant
Amanda Casson, BA.....	Interview and Outbreak Response Team
Julie Coughlin, MPH.....	Vector-Borne Disease Epidemiologist
Chris Galeazzi, MPH.....	Field Epidemiologist Unit Lead
Amy Hoehne, MPH.....	Field Epidemiologist
Nick Kalas, MPH.....	Field Epidemiologist
Jill Newland.....	Iowa Disease Surveillance System (IDSS)
Data Manager	
Kemi Oni, MPH.....	Foodborne Disease Epidemiologist
Rob Ramaekers, MPH, CPH.....	Surveillance Unit Lead/Vaccine-Preventable
Disease Program Coordinator	
Scott Seltrecht, MPH.....	Field Epidemiologist
Kyli Torkelson, BS.....	Interview and Outbreak Response Team
Ngoc Tran, MPA, CPM.....	Iowa Disease Surveillance System (IDSS)
Coordinator	
Lisa Vitale, RN, BSN.....	Nurse Clinician
Diana Von Stein, MPH.....	Field Epidemiologist
Andy Weigel, MSW.....	Epidemiologist/Influenza Surveillance
Program Coordinator	
Nancy Wilde, BS, LPN.....	Epidemiologist/Healthcare-Associated
Infection Program Coordinator	
Ben Williamson.....	Interview and Outbreak Response Team